Farmland Conservation

Indicator 4. Farmland Conservation

At a Glance

Farmlands needing conservation treatment
1982. . . . . 6,790 acres
1992. . . . . .5,893 acres
1997 . . . . . not available

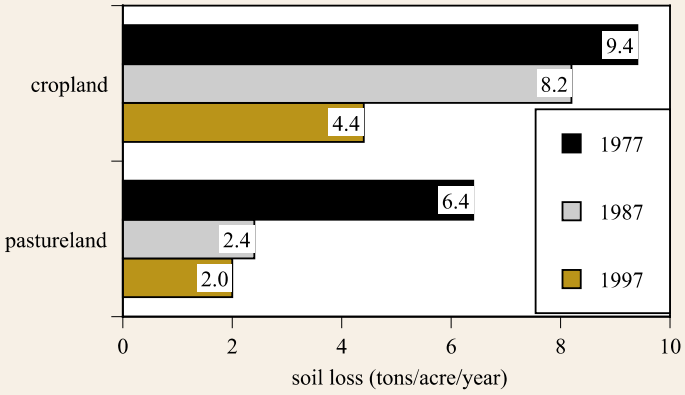
Farmland using conservation tillage (acres)
1982 . . . . . .3 million
1997 . . . . . 3 million
2000. . . . . 2 million

Background There are a number of factors that affect farmland productivity including weather, insects, disease, seed quality and soil conditions. New technologies and products, particularly fertilizers, pesticides and improved seed varieties, have greatly increased crop yields and production levels of Kentucky's cash crops.

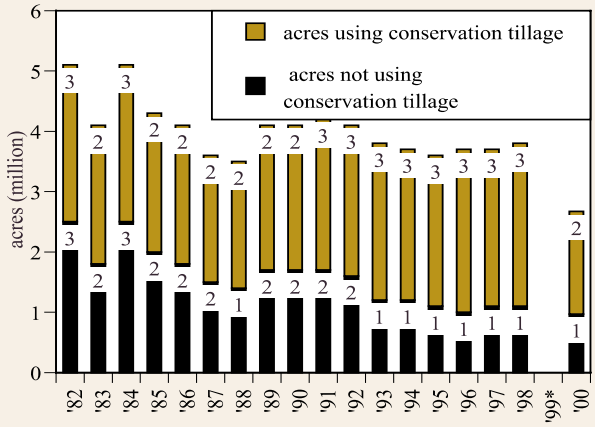
Erosion of topsoil can greatly affect farmland productivity while also degrading the quality of Kentucky's waterways. Siltation is the second leading source of water pollution in Kentucky.[1] Agricultural activities are the leading source of water pollution, contributing 25 percent of the pollution problems found in monitored waterways.[2] During 1997, an estimated that 22.8 million tons of soil eroded from cropland in Kentucky.[3] The U.S. Natural Resources Conservation Service has ranked 2.7 million acres of Kentucky's farmland as highly erodible. The agency estimates that half of the state's crop and pastureland is in need of erosion control measures.[4]

Goal To conserve, protect and encourage development and improvement of the state's agricultural lands for the production of food and other agricultural products.

Measure 1. Farmland Soil Erosion Rates in Kentucky



Measure 2. Conservation Tillage Use in Kentucky



Progress The amount of agricultural land requiring conservation treatment declined by 13 percent from 1982 to 1992, in part because of land retirement, but also because of the use of soil-conserving crop management practices such as conservation tillage.[5] The use of conservation tillage in Kentucky, a farming technique that disturbs less soil, has resulted in a dramatic reduction of soil loss. Erosion rates on cropland have declined from an average of 8.4 tons per acre per year in 1987, to 4.4 tons per acre per year in 1997. Pastureland erosion rates have dropped from 3.0 tons per acre per year in 1987 to 2.0 tons in 1999. It is estimated that 64 percent of Kentucky's farmland utilizes conservation tillage practices.

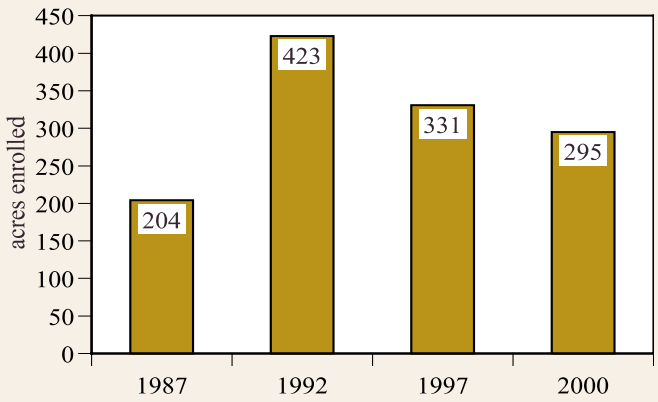
In 1985, Congress created the Conservation Reserve Program (CRP) to help farm owners and operators conserve and improve soil, water, air and wildlife resources by converting highly erodible and other environmentally sensitive land to a long-term (10 to 15 years) resource-conserving cover. In exchange, the federal government makes annual rental payments to the landowner and shares the cost of installing approved conservation practices. Nationwide, some 33.5 million acres are enrolled in the CRP.[6] Participation in the CRP has declined in Kentucky over the past decade, from a high of 423,000 acres in 1992 to 295,000 acres in 2000. This decline is due to the expiration of enrollment contracts of several farmers and expanded use of conservation tillage systems, which has allowed for greater farming of erodable lands with minimal disturbance of soils.[7]

The Kentucky Soil Erosion and Water Quality Cost Share Program was established by the General Assem-

bly in 1994. The program provides technical and financial assistance to individuals to implement Best Management Practices (BMPs) on farms or in woodland operations to improve water quality. The fund grew to more than $11 million in 2000. The program has funded 2,659 agricultural cost share practices to date. The program remains very popular, as indicated by the fact that the state has only been able to fund 37 percent of the 7,181 applicant requests.[8]

Efforts to control pollution from agricultural operations continue. The Kentucky Agriculture Water Quality Act, passed in 1994, requires all farms that are more than 10 acres in size and that meet the definition of an agricultural operation to develop and implement water quality plans to protect water quality and prevent pollution. To date, 32,592 agriculture operations (36 percent of the state's 91,000 farms) have voluntarily filed plans with state conservation districts.

Measure 3. Conservation Reserve Program in Kentucky



Footnotes

1. 305b Report to Congress 1998 and 2000, Ky. Division of Water.
2. Ibid.
3. Based on 5.2 million acres of cropland with an average erosion rate of 4.4 tons/acre/year. Source: 1997 National Resources Inventory.
4. 1997 National Resources Inventory, U.S. Natural Resources Conservation Service, 2000.
5. The U.S. Natural Resources Conservation Service did not conduct a conservation treatment inventory in 1997. The next inventory is scheduled in 2002.
6. Conservation Reserve Program (CRP) Signup, U.S. Department of Agriculture, Farm Service Agency.
7. Ky. Division of Conservation, May 2001.
8. Ibid.

Measures - notes and sources

***Measure 1**. Source: National Resource Inventories, 1982-97, Natural Resources Conservation Service.*
***Measure 2**. *No survey conducted in 1999. Source: Natural Resources Conservation Service.*
***Measure 3**. Source: National Resource Inventories, Natural Resources Conservation Service, 1982-97.*